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NOTICE OF ALLOWANCE AND FEE(S) DUE

26119

7590

10/19/2009

KLARQUIST SPARKMAN LLP 121 S.W. SALMON STREET SUITE 1600 PORTLAND, OR 97204

EXAMINER				
AN, SHAWN S				
ART UNIT	PAPER NUMBER			
2621				

DATE MAILED: 10/19/2009

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955.731	09/19/2001	Jordi Ribas-Corbera	3382-68270-01	9471

TITLE OF INVENTION: GENERALIZED REFERENCE DECODER FOR IMAGE OR VIDEO PROCESSING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/19/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

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If the SMALL ENTITY is shown as NO:

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 26119 7590 10/19/2009 Certificate of Mailing or Transmission KLARQUIST SPARKMAN LLP I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 121 S.W. SALMON STREET **SUITE 1600** PORTLAND, OR 97204 (Depositor's name (Signature (Date APPLICATION NO. ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE FIRST NAMED INVENTOR 09/955,731 09/19/2001 Jordi Ribas-Corbera 3382-68270-01 9471 TITLE OF INVENTION: GENERALIZED REFERENCE DECODER FOR IMAGE OR VIDEO PROCESSING APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$0 \$1810 01/19/2010 **EXAMINER** ART UNIT CLASS-SUBCLASS AN, SHAWN S 2621 375-240250 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this fo Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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09/955,731	09/19/2001	Jordi Ribas-Corbera	3382-68270-01 9471	
26119 7.	590 10/19/2009		EXAM	INER
KLARQUIST SI	PARKMAN LLP	AN, SHAWN S		
121 S.W. SALMON STREET		ART UNIT	PAPER NUMBER	
SUITE 1600 PORTLAND, OR	97204		2621 DATE MAILED: 10/19/200	9

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 581 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 581 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)		
	09/955,731	RIBAS-CORBERA ET	- AI	
Notice of Allowability	Examiner	Art Unit	· · · · ·	
	SHAWN AN	2621		
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIPORT of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to 6/3/09. The allowed claim(s) is/are 67-69 and 71-132.	(OR REMAINS) CLOSED in or other appropriate committee GHTS. This application is	n this application. If not included unication will be mailed in due of	l ourse. THIS	
3. ☐ Acknowledgment is made of a claim for foreign priority una) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). * Certified copies not received:	been received. been received in Applicati	on No	on from the	
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	ENT of this application. itted. Note the attached EX	AMINER'S AMENDMENT or NC		
 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. 				
 Attachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO/SB/08),	6. ☐ Interview S Paper No 7. ☑ Examiner's	nformal Patent Application Summary (PTO-413), /Mail Date s Amendment/Comment s Statement of Reasons for Allow	/ance	

Art Unit: 2621

EXAMINER'S AMENDMENT

I. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

IN THE CLAIMS:

- A) Please amend claims 67, 92, 108, 117, 121, 128, and 132 as follows:
- 67. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving a given bit stream of encoded data for a given video clip;

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, determining an operating condition using any of the multiple sets, wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip, and wherein the multiple sets are concurrently available for use in the determining the operating condition; and

with the video decoder, decoding the encoded data for the given video clip in accordance with the operating condition.

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92. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

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at the video decoder, receiving multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

108. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving a number parameter that indicates how many sets of reference decoder parameters are signaled for a given bit stream of encoded data for a given video clip;

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rote parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip;

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with the video decoder, processing the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

117. (currently amended) A computer-implemented method of decoding video with a video decoder, the method comprising:

at the video decoder, receiving multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifics constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple sets, wherein the multiple sets arc concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip;

at the video decoder, receiving multiple additional sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip;

with the video decoder, processing the multiple additional sets, wherein the multiple additional sets are concurrently available for use in re-determination of the operating condition, and wherein each of the multiple sets and multiple additional sets represents a different leaky bucket model for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip.

121. (currently amended) A computer implemented method of decoding video with a video decoder, the method comprising:

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at the video decoder, receiving a number parameter that indicates how many sets of reference decoder parameters are signaled :for a given bit stream of encoded data for a given video clip;

at the video decoder, receiving multiple sets of reference decoder parameters signaled for the given bit stream of encoded data for the given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip;

with the video decoder, determining an operating condition using any of the multiple sets, wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip, wherein the multiple sets are concurrently available for use in the determining the operating condition, and wherein each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip; and

with the video decoder, decoding the encoded data for the given video clip in accordance with the operating condition.

128. (currently amended) A video decoder comprising:

a processor;

memory; and

non-volatile storage media; storing computer-executable instructions for causing the video decoder to perform a method of decoding video, the method comprising:

wherein the processor, memory, and non-volatile storage media implement a video decoder adapted to:

at the video decoder, receiving receive multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the

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multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing process the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding decode the encoded data for the given video clip.

132. (currently amended) A computing device comprising:

a processor;

memory;

an input device; and

non-volatile storage medium; storing computer-executable instructions for causing the computing device to perform a method of decoding video with a video decoder, the method comprising:

wherein the processor, memory, and non-volatile storage medium implement a video decoder adapted to:

at the video decoder, receiving receive multiple sets of reference decoder parameters signaled for a given bit stream of encoded data for a given video clip, wherein each of the multiple sets comprises a rate parameter and a decoder buffer size parameter for a reference decoder model that specifies constraints on fluctuations of the given bit stream of encoded data for the given video clip, and wherein each of the multiple sets indicates a different and alternative combination of rate parameter and decoder buffer size parameter for the same video images in the given bit stream of encoded data for the given video clip;

with the video decoder, processing process the multiple sets, wherein the multiple sets are concurrently available for use in determination of an operating

condition, and wherein the operating condition indicates peak rate or decoder buffer size for decoding the encoded data for the given video clip; and

with the video decoder, decoding decode the encoded data for the given video clip.

REMARKS:

- II. Claims 67, 92, 108, 117, 121, 128, and 132 have been amended as discussed above, as authorized by Applicant's attorney, Kyle B. Rinehart on September 16, 2009.
- **III.** Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn An* whose telephone number is 571-272-7324.

/SHAWN AN/
Primary Examiner, Art Unit 2621
9/17/09

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Reasons for Allowance

1. As per Applicant's instructions as filed on 6/03/09, claims 67, 128, and 132 have been amended, and claims 1-66 and 70 have been canceled.

Furthermore, claims 67, 92, 108, 117, 121, 128, and 132 have been amended in the Examiner's Amendment as discussed above.

- **2.** Claims 67-69 and 71-132 are allowed.
- 3. Independent claims 67, 92, 108, 117, 121, 128, and 132, and corresponding dependent claims are allowed as having incorporated allowable subject matter (claimed feature, wherein each of the multiple sets indicates a different and alternative combinations of rate parameter and decoder buffer size parameter for the same video images, and/or each of the multiple sets represents a different and alternative point along a rate-decoder buffer size curve for the same video images in the given bit stream of encoded data for the given video clip), wherein the prior art of record fails to anticipate or make obvious the allowable subject matter as specified in independent claims 67, 92, 108, 117, 121, 128, and 132.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- **4.** The prior art made of record is considered pertinent to Applicant's disclosure.
 - A) Ozkan et al (5,933,451), Complexity determining apparatus.
 - B) Hurst Jr. (6,459,811 B1), Burst data transmission of compressed video data.
 - C) Morris (6,873,629), Apparatus/method for converting data streams.

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D) Eyuboglu et al (5,541,852), System/device/method for variable bit rate packet video communications.

- **5.** Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn An* whose telephone number is 571-272-7324.
- **6.** The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.